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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/771,487

02/03/2004

Jerry Wu

2859

25859

7590

10/12/2004

WEI TE CHUNG  
FOXCONN INTERNATIONAL, INC.  
1650 MEMOREX DRIVE  
SANTA CLARA, CA 95050

EXAMINER

ZARROLI, MICHAEL C

ART UNIT

PAPER NUMBER

2839

DATE MAILED: 10/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/771,487

Applicant(s)

WU ET AL.

Examiner

Michael C. Zarroli

Art Unit

2839

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☒ Claim(s) 12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

2. Claims 1-9 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. **All 112 rejections from the previous office action have been overcome except for the following.**

Claims 1, 4 and, 7 recite that the shielding plates are located every **two** adjacent lines. None of the drawings show this limitation. All the drawings show the shielding plates adjacent **every line** (e.g. figures 3 & 9). In the attached interview summary the applicant seems to interpret this language as indicated in the drawings. The examiner will interpret the claim language the same way. **The examiner appreciates the applicant's efforts in trying to correct this problem. Examiner suggests the phrase should read, -- between adjacent lines--.** The term "two" should be removed. This will match figures, e.g. figure 9.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3 and, 7-9 (as best understood) rejected under 35 U.S.C. 103(a) as being unpatentable over Beaman et al in view of Simmons et al.

Beaman discloses a plurality of lines (10) each including a pair of signal conductors (11, 12) and a ground conductor (15), a printed circuit board (60) defining opposite top and bottom surfaces (fig. 6) with a plurality of signal and ground conductive pads (64, 65, 67) thereon, the signal conductors being fixed to the corresponding signal conductive pads, respectively (figures 2 & 6), a plurality of shielding metallic plates (30) located between every adjacent two lines (fig. 6), respectively, for isolation, each of said shielding plates including at least one front finger located above the printed circuit board and fixed to the corresponding ground conductive pad on the printed circuit board (fig. 6), and a rear body portion (fig. 5) extending rearward from the finger and behind the printed circuit board; wherein each of said shielding plates is not fixed to any portions of the two

neighboring lines except the ground conductor (fig. 5 left) of only one of said two neighboring lines (fig. 6).

Beaman does not disclose that the lines are enclosed within a cable.

Simmons discloses a cable (6) that encloses a plurality of lines.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to enclose the lines of Beaman into a cable as taught by Simmons. The motivation/suggestion for doing so would have been to better protect and manage the lines. In addition, it has been held that forming in one piece an article that has formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893).

Regarding claims 2-3 and, 8-9 Beaman discloses that said signal conductive pads and said ground conductive pads are alternately arranged in a row on each of said top and bottom surfaces (fig. 6) wherein the front end of the signal conductors of the lines and the front fingers of the shielding plates are aligned with one another in a lateral direction perpendicular to a front-to-back direction of the printed circuit board (figures 4 & 6).

5. Claims 10-11 rejected under 35 U.S.C. 103(a) as being unpatentable over Long et al in view of Lin.

Long discloses an electrical connector (10), comprising: a printed circuit board (30) having a first edge (fig. 4 unseen left side) and a second edge (fig. 4 unseen right edge); a plurality of signal (32) and ground (34) conductive pads (col. 5 lines 35-43) alternatively arranged (figures 3 & 5-6) along the second edge; a plurality of shielding plates (28) each connected to a corresponding ground pad in the second edge (fig. 4) by at least one finger extending from the shielding plate; and wherein the printed circuit board does not include an undercut extending from the second edge for receiving the shielding plate (figure 4).

Long does not disclose that the PCB has a connector assembled to its first edge.

Lin discloses a PCB with a signal/ground contacts at the second edge and a connector (20) assembled to the second edge (fig. 1).

At the time the invention was made it would have been obvious to one of ordinary skill in the art to assemble a connector to the first edge of the PCB of Long et al as taught by Lee. The motivation for this addition of a connector to the device of Long et al would be to utilize the device in a computer backplane arrangement. Regarding claim 11 Long et al discloses that the electrical connector further comprises a cable (10) having a plurality of lines (12) therein, the lines and the

shielding plates arranged along the second edge of the printed circuit board (fig. 4) in an alternate manner (fig. 3).

### *Response to Arguments*

6. Applicant's arguments filed 9/21/04 have been fully considered but they are not persuasive.

Regarding the 103(a) rejection of claims 1-3 and, 7-9 Beaman's shield plate (33, fig. 5) **is not fixed** to any portions of the neighboring lines (21, 22), only the ground conductor (25).

In the argument on page 7 the applicant brings up the manner ("interference fit") in which the shield is connected to the insulators of the signal lines.

This has no bearing on the claim language used by the applicant. Nothing in the cited art teaches away from the rejection of the claims.

### *Allowable Subject Matter*

7. Claim 4 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

8. Claims 5-6 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.
9. Claim 12 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
10. The following is a statement of reasons for the indication of allowable subject matter: In combination with claim 4, the spacer that does not come in contact with the shielding plates.

### ***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Zhao et al teaches signal lines, shield plates.
12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened



statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Zarroli whose telephone number is 571-272-2101. The examiner can normally be reached on 7:30 to 3:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, T.C. Patel can be reached on (571) 272-2800 ext 39. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in black ink, reading "Michael C. Zarroli". The signature is fluid and cursive, with the first name "Michael" and last name "Zarroli" clearly distinguishable.

Michael C. Zarroli  
Primary Examiner  
Art Unit 2839

MCZ  
MCZ